TECHNICAL DATA SHEET

Isopropyl Acetate 99.98% ACS Grade

Revised: 04/27/2026

PRODUCT IDENTIFICATION

Product Name: Isopropyl Acetate 99.98% ACS Grade
CAS Number: 108-21-4
Molecular Formula: $C_5H_{10}O_2$
Molecular Weight: 102.13 g/mol
Grade: ACS Grade
Purity / Concentration: 99.98%
Synonyms: Isopropyl Ethanoate, Acetic Acid Isopropyl Ester

PRODUCT OVERVIEW

Isopropyl Acetate 99.98% ACS Grade is a high-purity, colorless, and volatile solvent essential for precise laboratory and industrial applications. Featuring an assay of 99.98% and extremely low impurity levels, such as 0.01% water content, it is the industry standard for high-performance chemical processes.

Grade Significance: ACS Grade designation ensures that the chemical meets the rigorous purity standards set by the American Chemical Society, providing users with the consistency and reliability required for analytical and research-grade work.

CERTIFICATE OF ANALYSIS — TYPICAL VALUES

PARAMETER	UNIT	TYPICAL	MIN	MAX	TEST METHOD
Assay (wt%)	%	99.98	99.5	—	GC-FID
Color (APHA)	APHA	5	—	10	ASTM D1209
Specific Gravity (20°C)	g/mL	0.871	0.87	0.873	ASTM D4052
Residue After Ignition	%	0.0005	—	0.0010	Gravimetric
Water Content	%	0.01	—	0.05	Karl Fischer Titration
Iron (Fe)	ppm	0.05	—	0.2	ICP-OES
Chloride (Cl^-)	ppm	0.1	—	1	Ion Chromatography
Sulfate (SO_4^{2-})	ppm	0.2	—	1	Ion Chromatography
Acidity As Acetic Acid	%	0.0010	—	0.0050	Titration

ND = Not Detected. Values are typical and may vary by lot.

PHYSICAL & CHEMICAL PROPERTIES

Appearance	Colorless, volatile liquid	**Odor**	Fruity odor
Form	Liquid	**Boiling Point**	88°C (190.4°F)
Melting / Freezing Point	-73°C (-99.4°F)	**Flash Point**	11°C (51.8°F)
Specific Gravity	0.872	**Solubility**	Soluble in water, alcohols, ethers, and other organic solvents
Molecular Formula	$C_5H_{10}O_2$	**Molecular Weight**	102.13 g/mol
Vapor Pressure (20°C)	30 mmHg	**Viscosity (25°C)**	0.89 cP
Refractive Index (20°C)	1.375	**Density (25°C)**	0.873 g/mL
Partition Coefficient (log P)	1.18	**Decomposition Temp.**	Not applicable (thermally labile at extreme conditions)

APPLICATIONS

1. **Analytical Chemistry** — Used as a mobile phase component in high-performance liquid chromatography to ensure accurate separation and analysis of organic compounds.
2. **Pharmaceutical Manufacturing** — Employed in critical extraction processes to isolate active pharmaceutical ingredients with high efficiency and minimal contamination.
3. **Coatings and Adhesives** — Utilized as a high-performance solvent in the formulation of paints and industrial coatings due to its excellent solvency properties.
4. **Precision Cleaning** — Acts as an effective cleaning agent for removing residues and contaminants from sensitive surfaces and laboratory equipment.

STORAGE & HANDLING

Due to its high flammability and low flash point of 11°C, this chemical must be stored in a cool, well-ventilated area away from all ignition sources. Proper containment is critical to prevent the accumulation of vapors, which can cause drowsiness or dizziness if inhaled.

- Store in a cool, dry, well-ventilated area away from heat sources.
- Use containers made of HDPE or glass to prevent chemical reactions.
- Avoid contact with strong oxidizing agents and acids.
- Keep away from direct sunlight to prevent degradation.
- Wear appropriate personal protective equipment (PPE) including gloves and goggles when handling.

AVAILABLE PACKAGING

- 1 Quart
- 1 Gallon
- 5 Gallon
- 55 Gallon

SAFETY SUMMARY (CROSS-REFERENCE TO SDS)

Signal Word: Danger

Hazard Statements:

- H225: Highly Flammable liquid and vapor [Danger Flammable liquids]
- H319: Causes serious eye irritation [Warning Serious eye damage/eye irritation]
- H336: May cause drowsiness or dizziness [Warning Specific target organ toxicity, single exposure; Narcotic effects]

Emergency Contact: CHEMTEL - 800-255-3924 (24 Hours/Day, 7 Days/Week)

For complete safety information, refer to the Safety Data Sheet (SDS) for this product.

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